REMARKS

Claims 1-20 are currently pending in the application. Reconsideration of the rejected claims in view of the following remarks is respectfully requested.

Information Disclosure Statement

Applicants note with appreciation the Examiner's indication that the Information Disclosure Statement filed June 26, 2003 has been considered. Applicants again note, however, that the Examiner has failed to initial one document (JP 9-114856) on the PTO-1449 Form. Applicants again respectfully request that the Examiner indicate consideration of this document by providing an initialed copy of the PTO-1449 Form in the next Official communication.

Allowable Subject Matter

Applicants note with appreciation the Examiner's indication of the allowable subject matter of claims 6, 7 and 16. However, Applicants submit that all of the claims are in condition for allowance for the following reasons.

35 U.S.C. §102 Rejection

Claims 1-5, 10-14 and 18 – 20 were rejected under 35 U.S.C. §102(b) for being anticipated by U. S. Patent Application Publication No. 2001/0018684 issued to Mild et al. ("Mild"). This rejection is respectfully traversed.

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To anticipate a claim, each and every element as set forth in the claim must be found, either expressly or inherently described, in a single prior art reference. MPEP §2131. Applicants submit that Mild does not show each and every feature of the claimed invention.

Independent Claims 1, 13, 19 and 20

The present invention generally relates to database access control, and more particularly, to representing and controlling views of data in non-relational databases to reduce index size and increase overall performance. More specifically, claim 1 recites, in pertinent part:

> creating a master view having a master view index referencing the data;
> creating a subordinate view of the master view having a subordinate view index referencing a subset of said master view index, where the subordinate view defines accessible portions of the data and the subordinate view index is linked to a subset of the master view index . . . .

Claim 13 recites, in pertinent part:

> creating at least one subordinate view having a subordinate index referencing a subset of a master index of at least one master view;
> creating a subordinate view index map associated with the at least one subordinate view when accessing the hierarchical data; and
> accessing the at least a portion of hierarchical data by using the subordinate view index map . . . .

Claim 19 recites, in pertinent part:

a first component to create a master view having a master view index referencing hierarchical data;

a second component to create a subordinate view of the master view that has a subordinate view index that references a subset of said master view index, the subordinate view defines accessible data of the hierarchical data and the subordinate view index linked to a subset of the master view index; and

a third component to access the hierarchical data via the subordinate view.

Claim 20 recites, in pertinent part:

a first computer program code to create a master view having a master index referencing the hierarchical data;

a second computer program code to create a subordinate view having a subordinate index referencing a subset of said master index, where the subordinate view defines accessible data of the hierarchical data and the subordinate view index is linked to a subset of the master view index;

a third computer program code to access the hierarchical data via the subordinate view; and

a fourth computer program code to create an index map and temporary index for linking data associated with the subordinate view to the master index.

The Examiner asserts that Mild discloses these features in paragraphs 0010, 0022, 0023 and 0028. Applicants respectfully disagree

Mild discloses a system and method for accessing non-relational data by relational access methods. In Mild, the non-relational data structure is mapped into a relational data structure having columns and rows. The maps are stored in a repository. Moreover, views are created which include a subset of the columns defined in a map (see paragraph 0010). Implementation of the map (FIG. 4C) and a view (FIG. 4D) allows a user to access the non-relational data via standardized relational database commands, such as SQL (paragraphs 0011, 0012).

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Applicants agree that the map (FIG. 4C) may constitute a master view, and the view (FIG. 4D) may constitute a subordinate view. Applicants submit, however, that Mild does not disclose a master view having a *master view index*, or a subordinate view having a *subordinate view index*. As shown in Figures 4C and 4D of Mild, the tables that may constitute a master view and a subordinate view, respectively, have no master view index or subordinate view index as part of the view. Rather, the tables, or views, have columns for all, or some, of employee number, function, name, salary, age and department.

Therefore, Applicants submit that Mild does not disclose creating a master view having a master view index and creating a subordinate view having a subordinate view index referencing a subset of said master view index, where the subordinate view index is linked to a subset of the master view index, as recited in claim 1. Moreover, Mild does not disclose creating at least one subordinate view having a subordinate index referencing a subset of a master index of at least one master view, creating a subordinate view index map associated with the at least one subordinate view and accessing the at least a portion of hierarchical data by using the subordinate view index map, as recited in claim 13. Furthermore, Mild does not disclose a first component to create a master view having a master view index, a second component to create a subordinate view of the master view that has a subordinate view index that references a subset of said master view index, the subordinate view defines accessible data of the hierarchical data and the subordinate view index linked to a subset of the master view index, as recited in claim 19. Additionally, Mild does not disclose a first computer program to create a master view having a master index referencing the hierarchical

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date, a second computer program code to create a subordinate view having a subordinate index referencing a subset of said master index, where the subordinate view defines accessible data of the hierarchical data and the subordinate view index is linked to a subset of the master view index as recited in claim 20.

Therefore, Mild does not contain each and every element of the claims, and does not anticipate the claimed invention.

Additionally, the Examiner further asserts that claims 19 and 20 are rejected using the same rationale as claims 1 – 18. Applicants respectfully disagree.

Applicants submit that claims 19 and 20 contain different features from claims 1-18, and therefore, cannot be "taught by Mild as applied to claims 1-18" and "rejected using the same rationale as claims 1-18" as asserted by the Examiner. For example, claim 19 recites, *inter alia*, an apparatus comprising a first component, and second component, and a third component. Furthermore, claim 20 recites, *inter alia*, a computer program product including a first computer program code, a second computer program code, a third computer program code, and a fourth computer program code. Claims 1-18 do not recites these features. Therefore, the Examiner has failed to identify how the applied reference discloses each and every feature of claims 19 and 20, and has thus failed to establish a *prima facie* case of anticipation.

Dependent Claims 2 – 5, 10 – 12, 14, and 18

Applicants respectfully submit that claims 2 – 5, 10 – 12, 14, and 18 depend from distinguishable independent claims, and are allowable based upon the allowability of the independent claims.

Accordingly, Applicants respectfully request that the rejection over claims 1 – 5, 10 – 14 and 18 – 20 be withdrawn.

35 U.S.C. §103 Rejection

Claims 8, 9, 15 and 17 were rejected under 35 U.S.C. §103(a) for being unpatentable over Mild in view of the publication "A Case for Dynamic View Management" by Kotidis ("Kotidis"). This rejection is respectfully traversed.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2142.

Applicants respectfully submit that the applied references do not teach or suggest all the claim limitations.

Kotidis discloses a system that manages dynamic collections of materialized aggregate views in a data warehouse. Each aggregate view is a view fragment that is stored in a view pool (pg. 392), and may be used, in whole or in part, to answer queries made by users. The system and method is concerned with answering queries to the data warehouse by using view fragments, and with dynamically updating data in the data warehouse and refreshing the fragments in the view pool (pg. 392-393).

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Applicants submit that Kotidis does not disclose creating a master view having a master view index and creating a subordinate view having a subordinate view index referencing a subset of said master view index, where the subordinate view index is linked to a subset of the master view index, as recited in claim 1. Moreover, Kotidis does not disclose creating at least one subordinate view having a subordinate index referencing a subset of a master index of at least one master view, creating a subordinate view index map associated with the at least one subordinate view and accessing the at least a portion of hierarchical data by using the subordinate view index map, as recited in claim 13.

Thus, Applicants submit that Kotidis does not compensate for the deficiencies of Mild.

Therefore, Applicants respectfully submit that claims 8, 9, 15 and 17 depend from distinguishable independent claims, and are allowable based upon the allowability of the independent claims.

Accordingly, Applicants respectfully request that the rejection over claims 8, 9, 15 and 17 be withdrawn.

CONCLUSION

In view of the foregoing remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 09-0457.

Respectfully submitted,
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